

**From:** [Dinkins, Darlene](#)  
**To:** [Overstreet, Anne](#); [Biscoe, Melanie](#); [Anderson, Neil](#); [Wasem, Russell](#); [Parsons, Laura](#)  
**Subject:** FW: Thoughts on response from John Edwards email on bromethalin  
**Date:** Friday, August 30, 2013 10:59:21 AM  
**Attachments:** [Rodenticide Ban Letter from Vet.pdf](#)

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Hi Everyone,

I just want to share with you the response I received from the email sent to Dr. John Edwards on Monday, August 26 (see below Edward's email). The incoming email from Edwards is also attached. Any thoughts on how or if we should respond would be appreciated.

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**From:** John Edwards [mailto:johnedwardsdvm@yahoo.com]  
**Sent:** Friday, August 30, 2013 1:35 AM  
**To:** Dinkins, Darlene; Wasem, Russell  
**Subject:** Re: EPA response to your letter concerning bromethalin

Ms. Dinkins,

Your response will be no solace to the increased pet owners who have lost their pet to bromethalin toxicity that we have seen and lost recently. All of these cases were managed by the ASPCA veterinarian toxicologists, so I am certain that everything that we could do was done for our patients and clients, and in every case, those who ingested bromethalin perished.

Nor do I agree with your statement that warfarin toxicity may take weeks to months to treat is a negative. A month of treatment is a small price to pay if you end up with a live pet. I have not seen this outcome ONE TIME with bromethalin toxicity thus far. Every single case I have seen has died. I am sorry your research disagrees with our observations.

As for your comments regarding zinc phosphide. Of course it is an outdoor poison, and I would hope that the average citizen would have the common sense to use it as directed. That, seeing the things we have seen, is a very optimistic statement.. But even used outside as permitted, isn't this where the pets and wildlife frequent? I heard this toxin was off the market for a while, but just made a comeback, and thus, we veterinarians have dealt with the toxic exposure to pets since that day. That being said, I do not appreciate your agencies disregard to the severe risks associated with this toxin. Veterinarians have been exposed to the phosphide gas secondary to exposure. This causes serious health implications to everyone in the workplace when we induce vomiting, which is the number one detoxifying procedure we perform! How do you justify this in any shape or form? It can kill humans from SECONDARY exposure. Every emergency veterinarian lives in fear of having a case of zinc phosphide. Yet your agency does NOTHING to make this toxin illegal. This seems like a simple case of knee-jerk reaction rather than logical steps to protect wildlife, pets, children and the people who treat them.

I will forward your response your response to veterinary toxicologists and other emergency veterinarians so you can hear their stories, and perhaps make your restrictions a bit more thorough and logical.

Sincerely,  
John Edwards, DVM

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**From:** "Dinkins, Darlene" <[Dinkins.Darlene@epa.gov](mailto:Dinkins.Darlene@epa.gov)>  
**To:** "[johnedwardsdvm@yahoo.com](mailto:johnedwardsdvm@yahoo.com)" <[johnedwardsdvm@yahoo.com](mailto:johnedwardsdvm@yahoo.com)>  
**Sent:** Monday, August 26, 2013 2:16 PM  
**Subject:** Re: EPA response to your letter concerning bromethalin

Dear Dr. Edwards:

Thank you for your email of June 25, 2013, to David Gray with the United States Environmental Protection Agency regarding your concerns with the rodenticide bromethalin. I appreciate the opportunity to respond on behalf of the agency since my office is responsible for regulating pesticides in the United States.

The EPA is committed to ensuring that rodenticide products marketed in the United States can be used safely, without unreasonable risks to human health and the environment, and are effective when used as directed by the label instructions. In May 2008, the EPA required new safety measures to protect children, pets and non-target wildlife from accidental exposure to rodenticide bait products. The measures included removing products containing the second generation anticoagulants from the consumer market, as well as requiring that products marketed to residential consumers contain a bait station and a bait form that is reasonably expected to remain in the bait station.

The EPA's decision was based, in part, on reports from the American Association of Poison Control Centers that since 1993, 10,000 to 15,000 rodenticide exposures to children are reported each year. In addition, thousands of pet exposures that result in hundreds of pet deaths occur each year, and non-target wildlife poisonings to second generation anticoagulants is significant and well documented. The EPA determined that the risk to children and pets was unreasonable because these exposures are avoidable through the use of bait stations. Risks to non-target wildlife could be minimized by the use of different active ingredients on the consumer market. The newly registered consumer use products that comply with EPA's decision are equally effective in controlling mice and rats, and they offer the advantage of increased protection for children, pets, and non-target wildlife such as birds, squirrels, and foxes.

You express concern about pet exposures to bromethalin rodenticide products since many of the new consumer products that comply with the EPA's risk mitigation measures contain this compound. Specifically, because an antidote (vitamin K) is available to treat pets accidentally poisoned by the second generation anticoagulants, you believe those compounds are safer to use around pets than bromethalin, which has no antidote.

We would note, first, that the second generation anticoagulant rodenticides have been involved in numerous reported pet exposures that have the potential to result in severe outcomes including death of the pet. These exposures are generally due to the accessibility of the rodenticides for pets to ingest. To minimize pet exposure to rodenticide products used in homes, the EPA has required that all rodenticide bait products marketed to general and residential consumers be sold only with bait stations and a bait form that is able to be secured in the bait station. Pelleted bait products and bait sold without a bait station are prohibited from being sold on the residential consumer market.

While vitamin K (often augmented with fresh frozen plasma) is an antidote for all seven anticoagulants (warfarin, chlorophacinone, diphacinone, brodifacoum, bromadiolone, difenacoum, and difethialone), due to the long half lives of the second generation anticoagulants (brodifacoum, bromadiolone, difenacoum, and difethialone) vitamin K therapy is sometimes necessary for weeks and months. Conversely, while there are no true antidotes for the other three rodenticide active ingredients (bromethalin, cholecalciferol and zinc phosphide), there are medical treatments designed to lessen absorption and/or to address symptoms.

Further, bromethalin, which has become more prevalent on the residential consumer rodenticide market, is much less toxic to dogs (LD<sub>50</sub> 4.8 mg/kg) than the second generation anticoagulants brodifacoum (LD<sub>50</sub> range 0.2 – 3.6 mg/kg) and difethialone (LD<sub>50</sub> 4 mg/kg). Additionally, cholecalciferol and zinc phosphide are not active ingredients in any rodenticide residential products approved for indoor use. It is highly unlikely the agency would consider allowing the registration of a residential consumer product labeled for indoor use with bait containing zinc phosphide.

Reporting any pesticide-related animal illness will help improve the quality of the EPA's animal incident data base as well as our understanding of the effectiveness of pesticide labeling. We encourage veterinarians to submit incident reports for every animal they treat that has been exposed to rodenticides. We are especially interested in specifics on the rodenticide incidents. We use this information to inform our evaluations of these compounds with regard to accidental pet exposure. Please submit any incident reports using our quick and easy-to-use [Veterinary Pesticide Adverse Effects Reporting](http://pi.ace.orst.edu/vetrep/) portal at <http://pi.ace.orst.edu/vetrep/>. In addition, consider reporting the incident to the product's [manufacturer](#). Manufacturers are [required by law](#) to submit reports of adverse effects to the EPA.

In summary, we believe our rodenticides mitigation decision and the required bait stations will reduce accidental pet exposure. However, if significant numbers of accidental pet exposures remain after we have fully implemented our mitigation decision and removed second generation anticoagulant rodenticides from the homeowner market, we will consider additional mitigation options to reduce accidental exposures.

Again, thank you for your email. If you have further questions, please contact Rusty Wasem at [wasem.russell@epa.gov](mailto:wasem.russell@epa.gov) or (703) 305-6979.

Sincerely,

Anne Overstreet, Chief  
Communication Services  
Branch  
Field and External Affairs  
Division

